

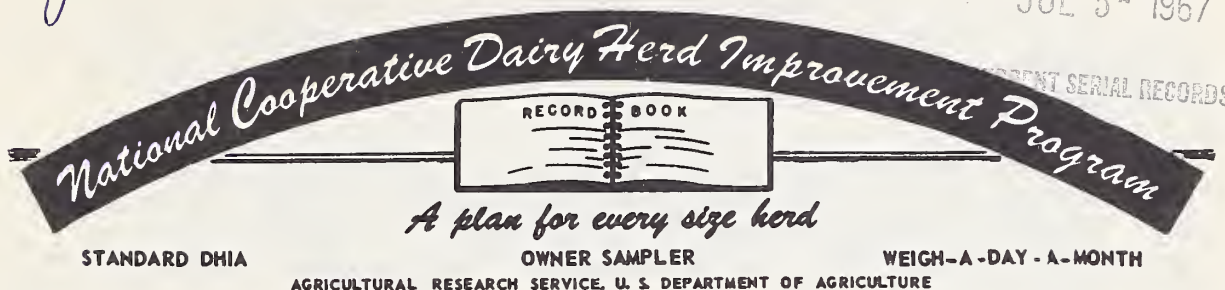
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Dairy-Herd-Improvement Letter

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(Vol. 43, No. 3)

April 1967

ARTIFICIAL INSEMINATION (AI) PARTICIPATION REPORT FOR THE
UNITED STATES 1966 1/

An estimated total of 7,933,723 cows were bred artificially in the United States in 1966. Of these, 7,286,580 were dairy cows, and 647,143 were beef cows. Semen from dairy bulls was used to inseminate 6,413,453 dairy cows. Semen from beef bulls was used to inseminate 873,127 dairy cows in addition to the beef animals. These dairy animals bred to beef bulls represented 12.0 percent of the 7,250,000 dairy cattle bred artificially.

Because of incomplete reporting and the lack of information, the tabular data in this report are partly estimations. Where possible, estimates were based on the averages and percentages from complete reports. Where only the number of ampules of semen used were available, the number of first services were estimated to be one-half of the number of ampules reported.

Table 1 shows that 47.9 percent of the nation's 15,201,000 dairy cows and heifers were artificially inseminated in 1966. About 1.9 percent of the nation's beef cows and heifers were artificially inseminated in the same period. Approximately 11 percent, or 818,630, of the dairy cattle so bred were registered.

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1/ Prepared by C. A. Rampendahl, R. D. Plowman, and B. T. McDaniel from data supplied by artificial insemination organizations, State Extension Dairyman, and the National Association of Animal Breeders.

Issued June 1967

The top 10 States in number and percentage of dairy and beef cattle bred artificially are shown in table 2. Wisconsin had the highest number of dairy cows, and Kansas the highest number of beef cattle.

A comparison of the scope of artificial insemination by State for the years 1965 and 1966 is shown in table 3. The greatest increase in the number of dairy cows bred occurred in Florida, and Kansas had the greatest advance in beef cattle.

The number of cows bred artificially in the United States since 1939 is shown by year in table 4. The continual upward trend in the percentage of dairy cattle bred artificially is illustrated in figure 1.

Table 5 shows that 35 organizations bred cows artificially in 1966. These organizations serviced an estimated 540,265 herds. However, it should be noted that a herd would be counted more than once when two or more AI studs bred cows in the same herd. It is estimated that 103,295 cows were bred by semen sold to individual farmers by the studs, and that 77,076 cows were bred by semen custom-frozen in addition to the 7,753,352 cattle serviced directly by their technicians.

Two organizations reported that they artificially inseminated 5,267 swine, which is 1,698 or 47.6 percent more than in 1965. Services to only 97 goats were indicated, a drop of 82 percent from 1965.

A total of 2,376 bulls were in AI studs in 1966. This probably exceeds the number of bulls actually in service in 1966, because it includes all bulls reported in studs at any time in 1966. It was possible to remove bulls without services from the counts only in cases where the stud reported an actual or estimated number of services by each individual bull.

The distribution of the 2,012 dairy bulls by type of service and breed is shown in table 6. About 59 percent of the dairy bulls were available in regular service, 35 percent were involved in progeny testing only, and the remaining 5 percent were available only on a special service basis. Only 1,737 of the dairy bulls were reported as having semen available on January 1, 1967. All 364 of the beef bulls were reported as in regular service.

Table 7 lists artificial breeding organizations active in 1966.

The accompanying map illustrates the AI density in the United States in 1966.

TABLE 1.--Status of artificial breeding in the United States, January 1, 1967

State and other sources	Studs 1/	Bred to dairy sires in 1966		Bred to beef sires in 1966		Dairy cattle		Beef cattle	
		Registered dairy cows 2/	Total dairy cows	Dairy cows	Beef cows	All U.S. milk cows 3/	Dairy cows bred as a percentage of all milk cows 4/	Other U.S. cattle and calves 2 years and older 5/	Beef cows bred as a percentage of other cattle and calves 6/
		Number	Number						
		Number	Number	Number	Number	Thousands	Percent	Thousands	Percent
Alabama-----	0	4,729	44,803	2,451	2,189	177	26.7	830	0.3
Alaska-----	1	136	783	-----	-----	2.1	37.3	2.3	---
Arizona-----	0	1,930	17,095	1,941	6,863	56	34.0	380	1.8
Arkansas-----	0	3,063	25,481	2,151	3,614	125	22.1	820	.4
California-----	4	21,145	356,453	33,272	15,153	841	46.3	1,025	1.5
Colorado-----	1	3,632	32,940	2,288	5,747	107	32.9	981	.6
Connecticut-----	0	7,013	43,996	5,503	596	77	64.3	4	14.9
Delaware-----	0	2,115	7,303	1,382	150	18	48.3	3	5.0
Florida-----	0	11,344	116,143	18,989	11,783	189	71.5	900	1.3
Georgia-----	0	7,097	52,688	5,363	4,474	163	35.6	754	.6
Hawaii-----	0	307	6,939	323	1,312	16	45.4	87	1.5
Idaho-----	0	5,149	68,169	9,242	6,825	171	45.3	513	1.3
Illinois-----	1	31,087	183,008	27,668	22,465	419	50.3	749	3.0
Indiana-----	1	15,112	118,929	13,095	13,555	323	40.9	418	3.2
Iowa-----	0	10,897	135,520	25,817	29,350	707	22.8	1,354	2.2
Kansas-----	1	9,452	81,183	6,870	44,298	245	35.9	1,627	2.7
Kentucky-----	0	16,444	108,008	21,846	15,899	430	30.2	885	1.8
Louisiana-----	1	6,388	60,567	9,471	10,987	215	32.6	910	1.2
Maine-----	0	7,022	43,836	5,349	92	77	63.9	9	1.0
Maryland-----	1	11,817	75,975	9,854	2,306	190	45.2	52	4.4
Massachusetts-----	0	7,403	43,444	7,146	823	78	64.9	4	20.6
Michigan-----	1	48,845	283,026	34,143	8,280	565	56.1	124	6.7
Minnesota-----	2	36,201	555,767	71,652	12,046	1,230	51.0	457	2.6
Mississippi-----	1	6,928	44,622	7,345	5,023	261	19.9	1,153	.4
Missouri-----	0	17,989	115,273	26,713	18,771	452	31.4	1,699	1.1
Montana-----	0	1,365	12,487	1,153	33,966	55	24.8	1,466	2.3
Nebraska-----	0	4,509	40,392	6,441	22,117	246	19.0	1,864	1.2
Nevada-----	0	378	3,791	298	1,444	15	27.3	286	.5
New Hampshire-----	0	3,667	23,656	2,918	116	45	59.1	2	5.8
New Jersey-----	0	12,704	51,000	7,461	447	103	56.8	6	7.5
New Mexico-----	0	1,787	24,341	1,342	1,182	41	62.6	696	.2
New York-----	1	100,636	644,253	82,274	3,347	1,196	60.7	50	6.7
North Carolina-----	1	13,421	82,030	8,827	7,918	225	40.4	303	2.6
North Dakota-----	0	1,052	23,900	2,643	15,053	206	12.9	976	1.5
Ohio-----	2	51,513	265,058	43,025	22,295	557	55.3	313	7.1
Oklahoma-----	0	10,223	22,437	1,501	7,564	173	13.8	1,942	.4
Oregon-----	0	5,667	61,462	5,090	5,736	132	50.4	666	.9
Pennsylvania-----	3	120,727	481,502	77,058	10,499	848	65.9	102	10.3
Puerto Rico-----	1	3,881	49,235	1,477	-----	-----	-----	-----	-----
Rhode Island-----	0	620	3,807	605	3	10	44.1	1	.3
South Carolina-----	0	3,925	30,152	3,030	3,822	83	40.0	237	1.6
South Dakota-----	0	2,761	30,233	2,857	10,200	229	14.4	1,642	.6
Tennessee-----	3	13,507	84,708	12,635	19,420	395	24.6	865	2.2
Texas-----	0	10,868	97,715	7,035	29,697	419	25.0	5,251	.6
Utah-----	1	3,387	47,152	5,637	4,126	83	63.6	310	1.3
Vermont-----	0	16,875	106,802	14,616	771	233	52.1	4	19.3
Virginia-----	1	11,196	100,372	13,437	7,021	272	41.8	455	1.5
Washington-----	2	11,003	131,083	10,781	9,608	217	65.4	377	2.5
West Virginia-----	0	2,498	20,518	3,694	2,507	82	29.5	183	1.4
Wisconsin-----	5	90,036	1,110,556	169,684	19,408	2,180	58.7	194	10.0
Wyoming-----	0	553	5,521	622	9,271	22	27.9	661	1.4
AI activity reported by studs, but State unknown 7/-----	-	26,626	237,339	37,112	13,156	-----	----	-----	----
International Beef Breeders 8/-----	-	-----	-----	-----	49,175	-----	----	-----	----
Semen services reported from ranchers' bulls 8/-----	-	-----	-----	-----	94,673	-----	----	-----	----
United States--	35	818,630	6,413,453	873,127	647,143	15,201	47.9	34,592	1.9

1/ States without studs purchase semen from studs in other States. See table 7 for name and location of studs.

2/ Data for registered cows may be all or partially estimated when incomplete report was given.

3/ Preliminary figures for number of cows and heifers 2 years old and over kept for milk estimated by the Statistical Reporting Service (USDA).

4/ Percentage of all dairy cows bred included in the artificial insemination program. Percentages for individual States may be affected, since no State breakdown for 258,997 dairy cows was reported by Carnation Farms Breeding Service.

5/ Preliminary figures for other cattle and calves 2 years and older; estimated by the Statistical Reporting Service (USDA).

6/ Percentage of all beef cows bred included in the artificial insemination program.

7/ AI breeding activity reported from: Carnation Farms, 271,153 cows; Curtiss, 2,000 cows; Tri State, 14,454 cows. Total: 287,607 cows.

8/ Information obtained from National Association of Animal Breeders, P.O. Box 1033, Columbia, Mo. 65201.

TABLE 2.--States with the highest number and percentage of dairy and beef cows bred artificially in 1966

Dairy cows					
Rank	State	Cows bred artificially	Rank	State	Cows breed artificially.
		Number	Percent		
1	Wisconsin	1,280,240	1	Florida	71.5
2	New York	726,527	2	Pennsylvania	65.9
3	Minnesota	627,419	3	Washington	65.4
4	Pennsylvania	558,560	4	Massachusetts	64.9
5	California	389,725	5	Connecticut	64.3
6	Michigan	317,169	6	Maine	63.9
7	Ohio	308,083	7	Utah	63.6
8	Illinois	210,676	8	New Mexico	62.6
9	Iowa	161,337	9	New York	60.7
10	Missouri	141,986	10	New Hampshire	59.1
Beef cows					
1	Kansas	44,298	1	Massachusetts	20.6
2	Montana	33,966	2	Vermont	19.3
3	Texas	29,697	3	Connecticut	14.9
4	Iowa	29,350	4	Pennsylvania	10.3
5	Illinois	22,465	5	Wisconsin	10.0
6	Ohio	22,295	6	New Jersey	7.5
7	Nebraska	22,117	7	Ohio	7.1
8	Tennessee	19,420	8	Michigan	6.7
9	Wisconsin	19,408	9	New York	6.7
10	Missouri	18,771	10	New Hampshire	5.8

TABLE 3.--Comparison of artificial breeding in the United States for years 1965 and 1966

State	Dairy cows bred artificially in--				Beef cows bred artificially in--		
	1965	1966	Increase or decrease	Increase or decrease 1/	1965	1966	Increase or decrease
	Number	Number	Number	Percent	Number	Number	Number
Alabama-----	46,170	47,254	+1,084	+4.4	2,188	2,189	+1
Alaska-----	1,983	783	-1,200	-45.3	73	-----	-73
Arizona-----	15,854	19,036	+3,182	+5.7	1,807	6,863	+5,056
Arkansas-----	25,750	27,632	+1,882	+7.2	3,549	3,614	+65
California-----	382,603	389,725	+7,122	+1.3	19,044	15,153	-3,891
Colorado-----	44,386	35,228	-9,158	-6.7	6,072	5,747	-325
Connecticut-----	49,429	49,499	+70	+1.7	1,267	596	-671
Delaware-----	8,794	8,685	-109	+13.1	166	150	-16
Florida-----	111,416	135,132	+23,716	+11.6	8,727	11,783	+3,056
Georgia-----	62,159	58,051	-4,108	+2.0	4,260	4,474	+214
Hawaii-----	10,210	7,262	-2,948	-11.3	498	1,312	+814
Idaho-----	78,894	77,411	-1,483	+4.6	6,247	6,825	+578
Illinois-----	221,790	210,676	-11,114	+3.7	20,760	22,465	+1,705
Indiana-----	137,831	132,024	-5,807	+5.1	11,252	13,555	+2,303
Iowa-----	282,823	161,337	-121,486	-14.4	23,893	29,350	+5,457
Kansas-----	84,858	88,053	+3,195	+5.6	23,848	44,298	+20,450
Kentucky-----	114,240	129,854	+15,614	+5.9	19,296	15,899	-3,397
Louisiana-----	65,762	70,038	+4,276	+4.0	6,107	10,987	+4,880
Maine-----	50,149	49,185	-964	+6.9	510	92	-418
Maryland-----	85,833	85,829	-4	+5.6	3,085	2,306	-779
Massachusetts-----	47,787	50,590	+2,803	+7.3	1,669	823	-846
Michigan-----	339,439	317,169	-22,270	+1.9	5,409	8,280	+2,871
Minnesota-----	641,692	627,419	-14,273	+2.0	10,094	12,046	+1,952
Mississippi-----	61,135	51,967	-9,168	-1.3	2,835	5,023	+2,188
Missouri-----	139,918	141,986	+2,068	+6.6	22,063	18,771	-3,292
Montana-----	14,181	13,640	-541	+3.6	24,687	33,966	+9,279
Nebraska-----	58,944	46,833	-12,111	-1.6	19,337	22,117	+2,780
Nevada-----	3,821	4,089	+268	+3.4	871	1,444	+573
New Hampshire-----	29,482	26,574	-2,908	-2.3	1,171	116	-1,055
New Jersey-----	58,634	58,461	-173	+4.4	325	447	+122
New Mexico-----	26,770	25,683	-1,087	+3	1,609	1,182	-427
New York-----	716,707	726,527	+9,820	+4.4	4,186	3,347	-839
North Carolina-----	90,983	90,857	-126	+4.4	5,147	7,918	+2,771
North Dakota-----	29,089	26,543	-2,546	+3	8,033	15,053	+7,020
Ohio-----	319,896	308,083	-11,813	+1.2	20,426	22,295	+1,869
Oklahoma-----	28,596	23,938	-4,658	-6	9,738	7,564	-2,174
Oregon-----	72,075	66,552	-5,523	-1.1	9,515	5,736	-3,779
Pennsylvania-----	570,930	558,560	-12,370	-1	9,701	10,499	+798
Puerto Rico-----	52,540	50,712	-1,828	-----	-----	-----	-----
Rhode Island-----	6,338	4,412	-1,926	-13.5	148	3	-145
South Carolina-----	29,478	33,182	+3,704	+8.0	1,741	3,822	+2,081
South Dakota-----	37,579	33,090	-4,489	-1.5	6,393	10,200	+3,807
Tennessee-----	99,918	97,343	-2,575	+3.6	13,158	19,420	+6,262
Texas-----	89,751	104,750	+14,999	+6.5	22,526	29,697	+7,171
Utah-----	50,804	52,789	+1,985	+9.6	3,498	4,126	+628
Vermont-----	122,305	121,418	-887	+3.8	4,632	771	-3,861
Virginia-----	114,874	113,809	-1,065	+5.2	5,769	7,021	+1,252
Washington-----	141,243	141,864	+621	+7.0	16,787	9,608	-7,179
West Virginia-----	24,031	24,212	+181	+6.8	1,414	2,507	+1,093
Wisconsin-----	1,351,829	1,280,240	-71,589	-5	21,406	19,408	-1,998
Wyoming-----	6,932	6,143	-789	+2.2	7,332	9,271	+1,939
AI activity reported by studs, but State unknown 2/-----	6,200	274,451	+268,251	-----	477	13,156	+12,679
All-beef studs 2/-	-----	-----	-----	-----	141,500	49,175	-92,325
Semen services reported from ranchers' bulls 2/-----	-----	-----	-----	-----	48,901	94,673	+45,772
United States----	7,264,835	7,286,580	+21,745	+4.2	615,147	647,143	+31,996

1/ Derived from all dairy cows bred in the artificial insemination program as a percentage of all milk cows in the United States.

2/ For year 1966, see table 1 and footnotes. For year 1965, see table 1 and footnotes in the April 1966 Dairy Herd Improvement Letter covering the Artificial Insemination Participation Report for 1965.

TABLE 4.--Status of artificial-breeding program in the United States (1939-1967, inclusive)

Year	Studs	Sires in service			Average per stud	Herds- 1/	Dairy cows bred to-			Beef cows bred to beef bulls	Total cattle bred	Cows bred per sire
		Dairy	Beef	Total			Dairy bulls	Beef bulls				
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	
1939	7	--	--	33	4.7	646	--	--	--	--	7,359	228
1940	25	--	--	138	5.5	2,971	--	--	--	--	33,977	246
1941	35	--	--	237	6.8	5,997	--	--	--	--	70,751	299
1942	46	--	--	412	9.0	12,118	--	--	--	--	112,788	274
1943	59	--	--	574	9.7	23,448	--	--	--	--	182,524	318
1944	56	--	--	657	11.7	28,627	--	--	--	--	218,070	332
1945	67	--	--	729	10.9	43,998	--	--	--	--	360,732	495
1946	78	--	--	900	11.5	73,293	--	--	--	--	537,376	597
1947	84	--	--	1,453	17.3	140,571	--	--	--	--	1,184,168	815
1948	91	--	--	1,745	19.2	224,493	--	--	--	--	1,713,581	982
1949	90	--	--	1,940	21.6	316,177	--	--	--	--	2,091,175	1,078
1950	97	--	--	2,104	21.7	409,300	--	--	--	--	2,619,555	1,245
1951	94	--	--	2,187	23.3	548,300	--	--	--	--	3,509,573	1,605
1952	94	--	--	2,324	24.7	671,100	--	--	--	--	4,295,243	1,848
1953	96	--	--	2,598	27.1	755,000	--	--	--	--	4,845,222	1,865
1954	93	--	--	2,661	28.6	805,000	--	--	--	--	5,155,240	1,937
1955	79	--	--	2,450	31.0	845,900	--	--	--	--	5,413,874	2,210
1956	79	--	--	2,553	32.3	900,400	--	--	--	--	5,762,656	2,257
1957	75	--	--	2,651	35.3	946,000	--	--	--	--	6,055,982	2,284
1958	71	--	--	2,676	37.7	975,372	--	--	--	--	6,645,568	2,483
1959	64	--	--	2,460	38.4	930,059	--	--	--	--	6,932,294	2,816
1960	62	--	--	2,544	41.0	910,000	--	--	--	--	7,144,679	2,808
1961	56	--	--	2,486	44.4	863,781	7,047,148	2/435,592	--	--	7,482,740	3,010
1962	56	2,036	420	2,456	43.9	862,150	6,837,681	2/911,006	--	--	7,748,687	3,155
1963	51	2,158	401	2,559	50.2	621,141	6,468,545	969,748	235,289	--	7,673,582	2,999
1964	50	2,140	398	2,538	50.8	654,311	6,165,599	1,117,395	464,959	--	7,747,953	3,053
1965	3/46	1,867	449	2,316	50.3	591,859	6,301,178	963,657	615,147	--	7,879,982	3,402
1966	3/44	1,949	439	2,388	54.3	540,265	6,413,453	873,127	647,143	4/7,933,723	3,322	--
1967	35	2,012	364	2,376	67.9	--	--	--	--	--	--	--

1/ Prior to 1963, number of herds largely reflected membership rather than those actually serviced.

2/ Probably includes some beef to beef inseminations.

3/ Includes one all-beef stud.

4/ Not shown are inseminations to 5,267 swine and 97 goats.

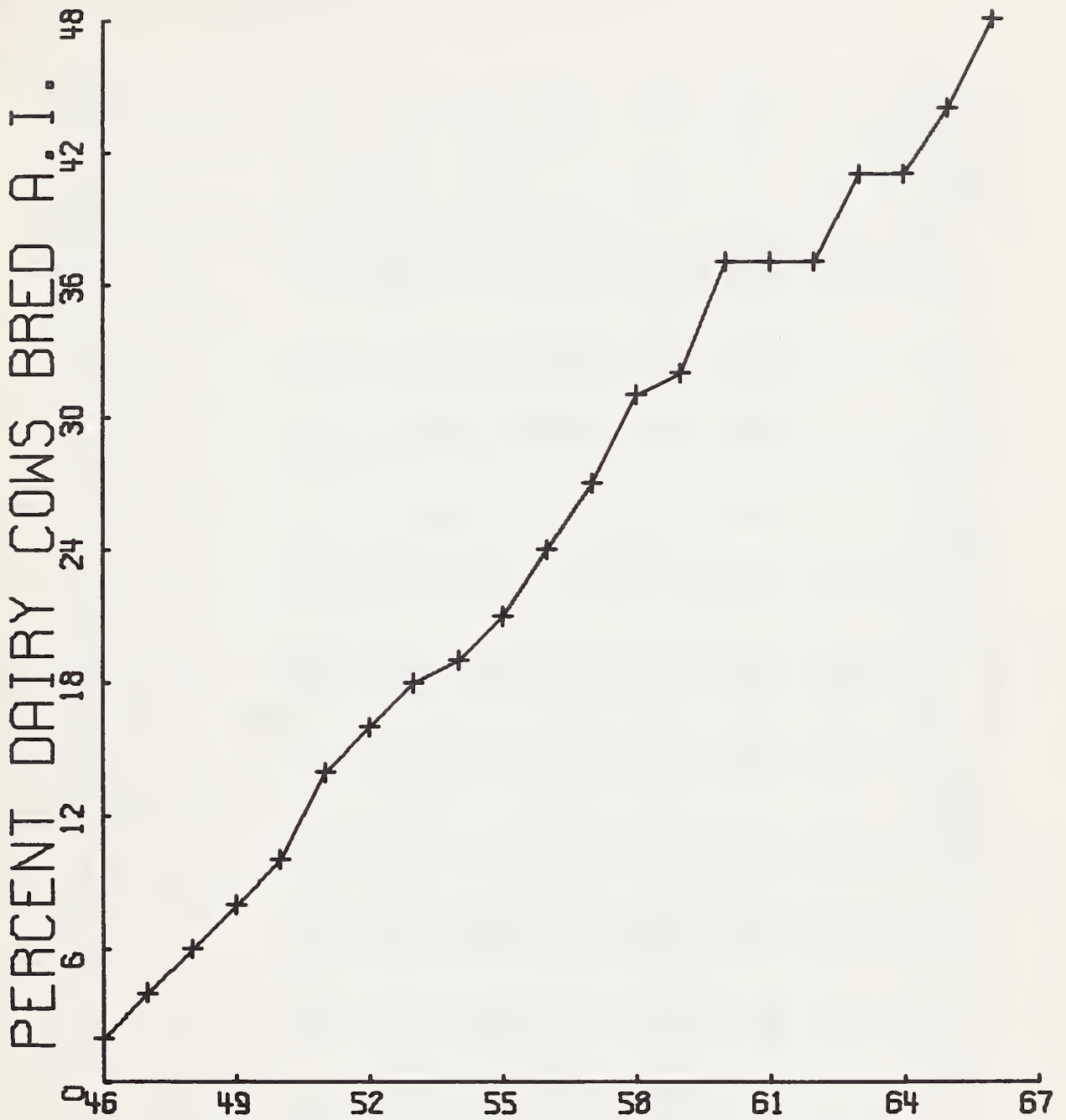


Figure 1.--Yearly trends in the percent of U.S. dairy cows bred artificially since 1946.

TABLE 5.--Cows bred in artificial-breeding organization bull studs during 1966

Stud code	Name of stud 1/	Herds serviced	Cows bred in 1966												Total bulls used 2/	Inseminations of-- Swine Goats
			First services			Semen sales			Semen transactions			Estimated total number of cows bred				
			Dairy		Beef	Dairy		Beef	Dairy		Beef					
			to beef	Number		to beef	Number		to dairy	Number						
			Number	to beef		Number	to dairy		Number	to beef			Number			
Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number			
2110	Eastern AIC-----	46,401	664,367	77,148	775	742,290	3,342	-----	-----	-----	-----	745,632	289	-----		
2301	Zimmerman-----	3/47	800	-----	-----	800	-----	-----	-----	-----	-----	4,300	4	-----		
2309	Atlantic-----	16,073	192,722	33,262	3,696	229,680	350	50	-----	-----	-----	230,080	75	22		
2311	NEBA-----	16,950	177,193	27,324	1,350	205,867	384	-----	-----	-----	-----	206,251	91	-----		
3102	NOBA-----	11,291	195,331	36,267	8,642	240,240	2,796	36	1,328	665	-----	245,065	67	4		
3202	John A. Newman-----	15	350	-----	-----	350	-----	-----	-----	-----	-----	350	2	-----		
3303	Curtiss-----	74,160	976,069	149,650	54,000	1,179,719	-----	-----	-----	-----	-----	1,181,719	162	-----		
3401	Michigan ABC-----	17,596	203,969	23,697	6,000	233,666	908	-----	-----	-----	-----	234,574	91	12		
3501	Associated-----	1,500	6,772	1,822	31	8,625	-----	-----	-----	-----	-----	8,625	19	-----		
3502	Badger-----	20,799	345,723	49,912	4,280	399,915	1,308	20	-----	-----	-----	401,243	63	-----		
3503	East Central-----	4,500	75,754	13,944	300	89,998	2,987	-----	-----	-----	-----	92,985	37	-----		
3505	Tri State-----	23,629	399,229	59,810	3/10,879	469,918	14,454	-----	-----	-----	-----	484,372	102	4,171		
3575	ABS-----	3/86,335	1,202,270	127,616	137,814	1,467,700	-----	-----	-----	-----	-----	1,467,700	293	-----		
4101	Minnesota Valley--	43,442	273,045	43,857	4,870	321,772	-----	-----	-----	-----	-----	321,772	104	-----		
4125	Midwest Genes-----	3/43,958	308,207	3/51,699	3/30,002	389,908	1,230	14,600	-----	-----	-----	415,738	109	-----		
4801	Kansas ABSU-----	3,000	40,394	3,290	26,464	70,148	2,968	12,950	-----	-----	-----	86,066	48	9		
5102	Maryland-West Va--	5,075	74,893	9,908	3,478	88,279	484	-----	-----	-----	-----	88,763	55	-----		
5201	Virginia ABA-----	7,200	63,951	9,195	3,941	77,087	79	8	750	2,438	30	80,362	30	8		
5501	N.C. Inst. B. P-----	10	1,017	-----	-----	1,017	102	-----	-----	300	300	1,719	15	-----		
6102	Select Sires-----	3/47,571	385,708	3/61,884	3/62,036	509,628	851	639	4,821	12,862	-----	528,801	233	1,096		
6301	East Tennessee-----	3/1,803	22,836	4,898	2,921	30,655	-----	-----	-----	-----	-----	33,292	34	-----		
6302	Tennessee ABA-----	5,200	25,707	4,869	4,000	34,576	150	-----	-----	3,000	37,726	19	-----	-----		
6303	West Tennessee-----	1,680	6,720	565	2,765	10,050	250	75	-----	-----	-----	10,375	16	-----		
6502	Mississippi ABC-----	300	20,400	4,845	255	25,500	2,300	23	-----	-----	-----	27,823	12	-----		
7201	Louisiana ABC-----	5,638	59,129	9,426	6,500	75,055	200	50	-----	-----	-----	79,305	42	-----		
8401	Colorado St. Univ-----	-----	-----	-----	-----	-----	550	2,250	1,119	6,056	-----	9,975	2	-----		
8701	Cache Valley-----	8,355	59,620	7,326	14,226	81,172	-----	8,808	-----	-----	-----	89,980	53	-----		
9111	Carnation-----	3/15,950	221,885	37,112	12,156	271,153	-----	-----	-----	-----	-----	271,153	101	-----		
9113	All West-----	29,000	169,409	3/12,687	3/6,136	188,232	2,198	-----	-----	-----	-----	188,232	85	-----		
9302	Adohr-----	20	5,869	-----	-----	5,869	-----	-----	-----	-----	-----	8,067	24	-----		
9303	Excelsior-----	139	17,777	200	20	17,997	12,625	50	-----	-----	-----	30,672	22	-----		
9305	Jessup-----	1,568	75,991	9,903	1,752	87,646	-----	-----	-----	-----	-----	108,946	51	12		
9310	Pacific-----	600	26,854	3/1,011	3/489	28,354	10,820	2,400	-----	-----	-----	41,574	14	-----		
9401	Puerto Rico ABA-----	400	26,092	-----	-----	26,092	-----	-----	-----	-----	-----	26,092	7	-----		
9601	Matanuska Valley--	60	546	-----	-----	546	-----	-----	-----	-----	-----	546	5	-----		
STUDS OR RANCHERS																
SERVICING ONLY BEEF																
CATTLE																
8406	International Beef	-----	-----	-----	49,175	49,175	-----	-----	-----	-----	-----	49,175	-----	-----		
Breeder's 4/-----		-----	-----	-----	94,673	94,673	-----	-----	-----	-----	-----	94,673	-----	-----		
Semen services reported from ranchers' bulls 4/-----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
United States-----		540,265	6,326,599	873,127	553,626	7,753,352	61,336	41,959	25,518	51,558	7,933,723	2,376	5,267	97		

1/ See table 7 for list of names and addresses of studs.

2/ See table 5 for breakdown of bulls by stud, by breed.

3/ Data may be all or partially estimated when incomplete report was given.

4/ Information obtained from National Association of Animal Breeders, P.O. Box 1033, Columbia, Mo. 65201.

TABLE 6.--Bulls used in artificial-breeding organizations during 1966

Stud code	Name of stud 1/	Bulls by breed 2/										Type of service by dairy bulls		
		Ayr-shire	Brown Swiss	Guernsey	Holstein	Jersey	Red Dane	Short-horn	Beef	Total	Regular	Special or planned mating	Number	Progeny testing
		Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
2110	Eastern AIC-----	14	11	36	171	45	--	--	12	289	76	15	186	
2301	Zimmerman-----	--	--	--	4	--	--	--	--	4	4	--	--	
2309	Atlantic-----	2	4	15	35	7	--	--	12	75	49	12	2	
2311	NEBA-----	4	4	14	55	9	--	--	5	91	36	1	49	
3102	NOBA-----	--	3	11	32	15	--	1	5	67	38	6	18	
3202	John A. Newman-----	3/4	3/5	3/13	3/78	3/11	3/3	3/3	--	2	2	--	--	
3303	Curtiss-----	4	5	13	49	7	4	3	48	162	110	4	4	
3401	Michigan ABC-----	--	2	15	49	7	--	4	10	91	40	8	33	
3501	Associated-----	--	--	3	13	--	--	--	3	19	16	--	--	
3502	Badger-----	--	6	13	38	2	--	--	4	63	50	--	9	
3503	East Central-----	--	3	3	24	--	--	--	7	37	28	2	--	
3505	Tri State-----	--	3	17	61	4	--	2	15	102	68	--	19	
3575	ABS-----	2	2	7	234	12	--	--	36	293	70	9	178	
4101	Minnesota Valley-----	1	4	11	65	--	--	1	22	104	24	--	58	
4125	Midwest Genes-----	--	3	11	54	5	--	4	32	109	69	3	5	
4801	Kansas ABSU-----	3	2	1	24	2	--	2	4/14	48	34	--	--	
5102	Maryland-West Va-----	4	3	7	29	5	--	--	7	55	29	--	19	
5201	Virginia ABA-----	1	--	5	16	5	--	--	3	30	11	--	16	
5501	N.C. Inst. B. P-----	--	--	--	15	--	--	--	--	15	3	--	12	
6102	Select Sires-----	4	21	32	124	22	--	4	26	233	113	32	62	
6301	East Tennessee-----	1	1	6	10	8	--	1	7	34	27	--	--	
6302	Tennessee ABA-----	--	3	3	5	6	--	--	2	19	16	1	--	
6303	West Tennessee-----	--	--	--	6	4	--	--	6	16	10	--	--	
6502	Mississippi ABC-----	--	--	1	2	8	--	--	1	12	11	--	--	
7201	Louisiana ABC-----	--	--	8	13	7	--	--	14	42	18	--	10	
8401	Colorado St. Univ-----	--	--	--	1	--	--	--	1	2	--	--	1	
8701	Cache Valley-----	--	1	1	22	2	--	--	27	53	12	5	9	
9111	Carnation-----	1	6	10	53	4	--	2	25	101	76	--	--	
9113	All West-----	--	--	16	36	20	--	--	13	85	72	--	--	
9302	Adohr-----	--	--	9	13	--	--	--	2	24	20	2	--	
9303	Excelsior-----	--	1	--	21	--	--	--	--	22	11	2	9	
9305	Jessup-----	1	2	8	31	5	--	--	4	51	28	9	10	
9310	Pacific-----	--	--	2	6	5	--	--	1	14	13	--	--	
9401	Puerto Rico ABA-----	--	--	--	7	--	--	--	--	7	7	--	--	
9601	Matanuska Valley-----	--	--	--	5	--	--	--	--	5	4	1	--	
United States-----		42	90	278	1,352	220	4	24	364	2,376	1,195	108	709	

1/ See table 7 for list of names and addresses of studs.

2/ These counts are based on where bulls are housed and does not reflect the fact that they are available to more than one stud.

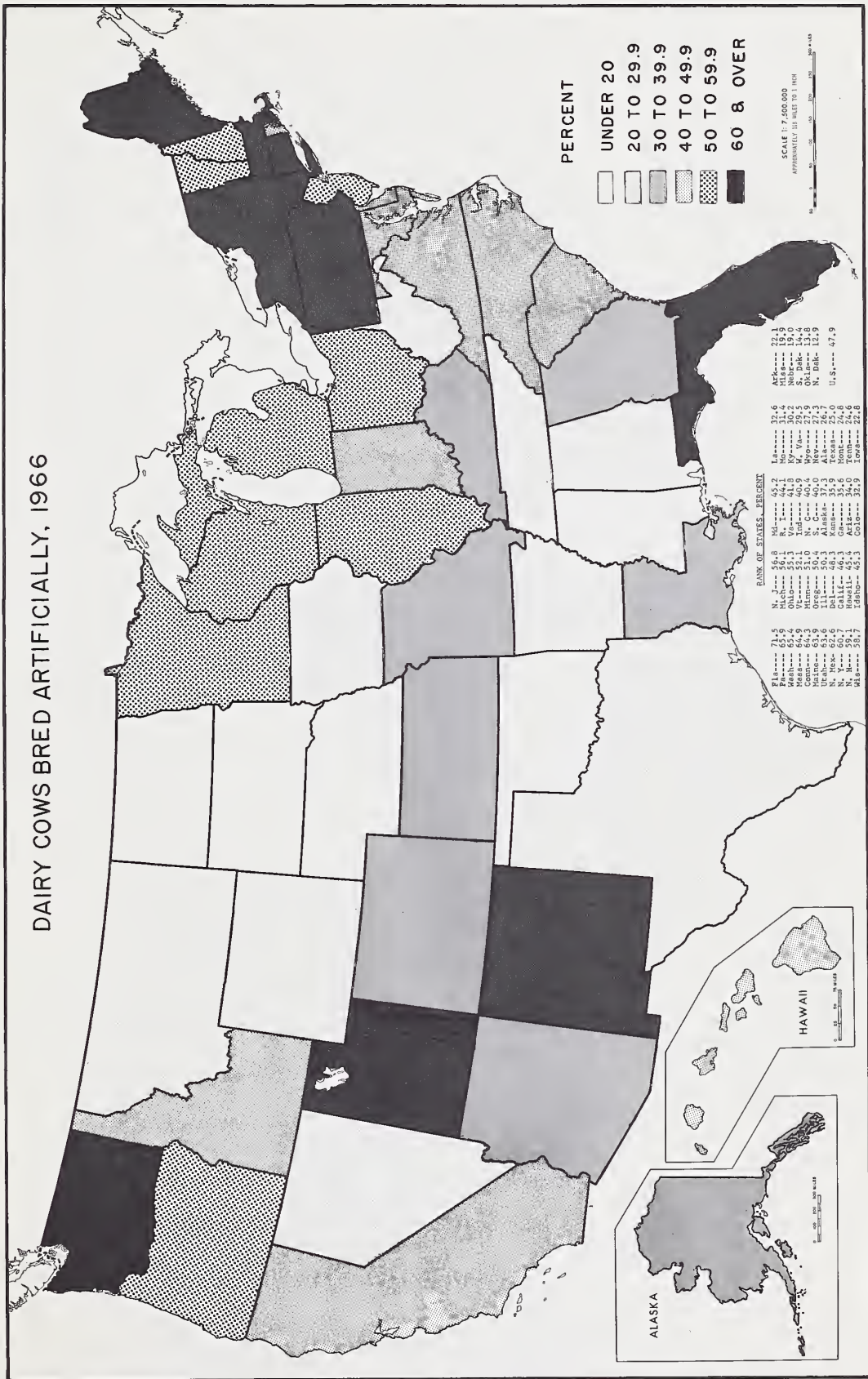
3/ Unknown.

4/ Based on report of 1-1-66.

TABLE 7.--Artificial-breeding organization bull studs in the United States

State	Stud code	Name and address
Alaska-----	9601	Matanuska Valley Breeders Association, Palmer 99645.
California-----	9302	Adohr Farms Inseminating Service, Rt. 1, P.O. Box 18, Camarillo 93010.
	9303	Excelsior Breeding Service, 7401 Adams Ave., Rt. 1, Box 128, Corona 91720.
	9305	Jessup Breeders, 5471 San Fernando Road West, Glendale 91203.
	9310	Pacific Breeders Coop., Inc., 1464 Middle Two Rock Road, Petaluma 94952.
Colorado-----	8401	Colorado State University ABS, 809 City Park Ave., Fort Collins 80521.
Illinois-----	3303	Curtiss Breeding Service, Inc., Cary 60013.
Indiana-----	3202	John A. Newman & Sons, Rt. 2, Box 21, Culver 46511.
Kansas-----	4801	Kansas ABS Unit, Kansas State University, Anderson Hall, Manhattan 66504.
Louisiana-----	7201	La. Animal Breeders Coop., Inc., Louisiana State University, Box BD, Baton Rouge 70803.
Maryland-----	5102	Maryland-West Virginia Bull Stud, Inc., Box 555, Frederick 21701.
Michigan-----	3401	Michigan Animal Breeders Coop., Inc., P.O. Box 511, East Lansing 48824.
Minnesota-----	4125	Midwest Genes, Inc., Box 111, Anoka 55303.
	4101	Minnesota Valley Breeders Association, New Prague 56071.
Mississippi-----	6502	Mississippi Animal Breeders Coop., Drawer BA, State College 39762.
New York-----	2110	Eastern Artificial Insemination Coop., Inc., Box 518, Ithaca 14850.
North Carolina---	5501	N. C. Institutional Breeding Association, Department of Animal Science, 231 Polk Hall, North Carolina State University, Raleigh 27600.
Ohio-----	3102	NOBA, Inc., Rt. 4, P.O. Box 607, Tiffin 44883.
	6102	Select Sires, Inc., 1224 Alton-Darby Road, Columbus 43228.
Pennsylvania-----	2309	Atlantic Breeders Coop., Rt. 230 By-Pass, Box 254, Lancaster 17604.
	2311	Northeastern Breeders Association, Inc., R.D. 2, Tunkhannock 18657.
	2301	Zimmerman Dairy Farm, Rt. 2, Lehighton 18235.
Puerto Rico-----	9401	Puerto Rico Artificial Breeding Association, P.O. Box 958, Dorado 00646.
Tennessee-----	6301	East Tennessee ABA, Rt. 10, Tipton Station Road, Knoxville 37920.
	6302	Tennessee Artificial Breeding Association, Rt. 2, Granny White Pike, Brentwood 37027.
	6303	West Tennessee ABA, Box 38, Yorkville 38389.
Utah-----	8701	Cache Valley Breeding Association, 1950 North Main, Logan 84321.
Virginia-----	5201	Virginia Animal Breeders Association, Inc., P.O. Drawer 391, Rocky Mount 24151.
Washington-----	9113	All West Breeders, P.O. Box 197, Burlington 98233.
	9111	Carnation Farms Breeding Service, Carnation 98014.
Wisconsin-----	3575	American Breeders Service, Inc., De Forest 53532.
	3501	Associated Breeding Service, Lena 54139.
	3502	Badger Breeders Coop., Rt. 2, P.O. Box 469, Shawano 54166.
	3503	East Central Breeders Association Coop., P.O. Box 191, Waupun 53963.
	3505	Tri State Breeders Coop., Westby 54667.
ALL-BEEF STUD		
Colorado-----	8406	International Beef Breeders, Inc., P.O. Box 29007, Denver 80229.

DAIRY COWS BRED ARTIFICIALLY, 1966



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